S/N 10/677,128 **PATENT**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant : Rudolf Engl et al.
Serial No. : 10/677,128
Filed : September 30, 2003
Art Unit : 2122
Confirm No. : 3900
Examiner : Tejal Gami
Docket : 07600.001US1
Title : LIGHT CURTAIN ASSEMBLY

APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

The final Office Action for this application was mailed March 14, 2011, and a Response was filed on May 31, 2011. An Advisory Action mailed June 22, 2011 further confirmed the Examiner considered the application was not in condition for allowance, and a Notice of Appeal was submitted on September 13, 2011. Appellant respectfully appeals to the Board for review of the Examiner's final rejection.

The appropriate fee for filing this Appeal Brief will be paid at the time of electronic filing.

CERTIFICATE OF TRANSMISSION
I hereby certify that this correspondence is transmitted electronically by facsimile, by electronic transmission, or is being deposited with the United States Postal Service as first class mail with sufficient postage to the Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 this 9 day of January 2012.

Michelle McCullough
Typed or Printed Name of Person Signing Certificate

Michelle McCullough
Signature

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

TABLE OF CONTENTS

Page

1. REAL PARTY IN INTEREST 3
2. RELATED APPEALS AND INTERFERENCES 4
3. STATUS OF THE CLAIMS 5
4. STATUS OF AMENDMENTS 6
5. SUMMARY OF CLAIMED SUBJECT MATTER 7
6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL 9
7. ARGUMENT 10
8. CLAIMS APPENDIX 16
9. EVIDENCE APPENDIX 19
10. RELATED PROCEEDINGS APPENDIX 20

(1) Real Party in Interest.

The real party in interest of the above-captioned patent application is Rockwell Automation Technologies, Inc., 1 Allen-Bradley Drive, Mayfield Heights, OH 44124.

(2) Related Appeals and Interferences.

There are no related appeals or interferences.

(3) Status of Claims.

Claims 7 -16, 21 - 25 have been canceled. Claims 1 – 6, 17-20, 26 - 33 are pending and stand finally rejected and are the subject of this Appeal (see Appendix I).

(4) Status of Amendments.

No Amendment has been filed subsequent to the Amendment and Response filed by Appellants on May 31, 2011. The claims listed in Appendix I reflect the claims as they currently exist.

(5) Summary of the Claimed Subject Matter.

This summary is presented in compliance with the requirements of 37 CFR 41.37(c)(1)(v), mandating a "concise explanation of the subject matter defined in each of the independent claims involved in the appeal. . ." Nothing contained in this summary is intended to change the specific language of the claims described, nor is the language of this summary to be construed so as to limit the scope of the claims or their equivalents in any way.

Therefore, the following summary does not provide an exhaustive or exclusive view of the present subject matter, and Appellants refer the Board to the appended claims and their legal equivalents for a complete statement of the invention. Page and line numbers given are exemplary in nature and not intended to be an exhaustive listing of each and every location where the particular subject matter can be found in the specification.

The invention is directed to an apparatus including a sensing assembly 100 that allows access to programming features and a teaching actuator 123 through a port. The apparatus includes an access door 124, 142 of a housing assembly 110 (FIGs. 1 - 2), for example, disposed on a transmitting side of the housing. (¶0018, FIG. 2) The door covers programming features and a teaching actuator. Indicators provide an indication that the access door has been opened. (¶¶ 0005, 0020, 0027, 0030, FIGs. 2 - 5) The teaching actuator is released in a predetermined amount of time after cessation of visual indication of the visual indicators 136. (¶0036, FIG. 2) A sensor configured to sense whether the access door is in the closed position or in the open position. (¶ 0020)

Independent Claim 1

1. An apparatus comprising:

a light curtain assembly, the light curtain assembly including: (¶ 0014)

a housing assembly 110; (¶ 0016, FIG.1)

programmable controls coupled with the housing assembly; (¶ 00118, FIGs. 2 – 5)

a teaching actuator 123 operatively coupled with the programmable controls; and

an access door 124 coupled with a portion of the housing assembly, the access door having a closed position and an open position, the access door preventing access to the programmable controls and the teaching actuator through the access port when the access door is disposed in the closed position, the access door structured as slidable, as rotatable, as operably elevated, or combinations thereof to provide access to the programmable controls otherwise protected by the access door. (¶¶ 0018, 0019, 0020, 0026, 0027, 0028, 0029 FIGs. 2, 3)

Independent Claim 17

17. An apparatus comprising:

a light curtain assembly, the light curtain assembly including: (¶ 0014)

a housing assembly including an access port therein; (¶0016, FIG. 1)

programmable controls coupled with the housing assembly; (¶ 00118, FIGs. 2 – 5)

a teaching actuator 123 operatively coupled with the programmable controls; (¶ 0036)

an access member door 124, 142 coupled with a portion of the housing assembly, the access member door preventing physical access to the programmable controls through the access port and the teaching actuator when the access member door is disposed in a closed position, and the access member door structured to prevent prevents unauthorized physical access to the programmable controls, the access door operable in position or condition to provide access to the programmable controls otherwise protected by the access door. (¶¶ 0018, 0019, 0020, 0026, 0027, 0028, 0029 FIGs. 2, 3)

(6) Grounds of Rejection to be Reviewed on Appeal.

Whether claims 1-6, 17 – 20, 26 – 33 were properly rejected under 35 U.S.C. § 102 (b) as being anticipated by "MiniSafe MS4600 Series Safety Light Curtain, "MiniSafe MS4600 Installation and Operating Manual, (07/08/1999), pages 1 – 39."

(7) Arguments

a. The Applicable Law

35 U.S.C. § 102(b)

"For a prior art reference to anticipate in terms of 35 U.S.C. § 102, every element of the claimed invention must be identically shown in a single reference." *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566, 1567 (Fed. Cir. 1990). "The identical invention must be shown in as complete detail as is contained in the . . . claim." *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). In other words, anticipation exists only if all the elements of the claimed invention are present in a product or process disclosed, expressly or inherently, in a single prior art reference. *RCA Corp. v. Applied Digital Data Sys., Inc.*, 730 F.2d 1440, 221 USPQ 385 (Fed. Cir. 1984), cert. dismissed sub nom. *Hazeltine Corp. v. RCA Corp.*, 468 U.S. 1228 (1984); see also, MPEP §706.02. In addition, in order to anticipate the elements in the single reference "must be arranged as in the claim under review." Id., (quoting *Lindemann Maschinenfabrik v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1948)).

b. Discussion of the Rejections

Claims 1-6, 17-20, 26-33 were rejected under 35 U.S.C. § 102(b), as being anticipated by "MiniSafe MS4600 Series Safety Light Curtain," MiniSafe MS4600 Installation and Operating Manual, (07/08/1999), pages 1-39. Appellant respectfully traverses.

Appellant submits that the rejection of claims 1 - 6, 17 - 20, 26 - 33 fails because the cited reference fails to identically show all of the elements of the claims. For instance, Appellant cannot identically find in the MiniSafe, a teaching actuator operatively coupled with the programmable controls, as recited in claims 1 - 6, 17 - 20, and 26 - 33. Furthermore, Appellant cannot find in the MiniSafe the access door structured as slidable, as rotatable, as operably elevated, or combinations thereof to provide access to the programmable controls otherwise protected by the access door as recited in claims 1 - 6, 17 - 20, and 26 - 33. In addition, Appellant cannot find where an access door for the teaching actuator is disposed on a transmitting side of the housing assembly, as recited in claim 3. In addition, Appellant cannot find in the cited reference a teaching actuator that is released in a predetermined amount of time after cessation of visual indication of the visual indicators, as recited in claim 6 and 20. Still further, Appellant cannot find in MiniSafe a sensor configured to sense whether the access door is in the closed position or in the open position, as recited in claim 28. Reconsideration and allowance are respectfully requested.

According to the Office Action, MiniSafe shows "a teaching actuator (e.g., switch settings)" and "the access door preventing physical access (e.g., inside receiver end cap 10) (see Figure F-1 on Page 39; and Page 4) to the programmable controls (e.g., program button must remove security screw)(see Page 4, Page 10, and Figure F-1 on Page 39) and the teaching actuator (e.g., switches A and B). Page 3, Office Action. Appellant respectfully traverses.

Appellant submits the "switch settings" of MiniSafe are not a teaching actuator as recited in the claims. According to the Application, "[t]he at least one teach actuator 123 is used in conjunction with the visual indicators to implement the programming of the dip switch 134" [i.e. switch settings]. Page 8, Paragraph [0018], Application. The application further states "[o]nce the dip switches 134 [switch settings] are disposed in a selected configuration, the teach actuator 123 is actuated, such as by depressing a button, for a predetermined amount of time. . . . [the user releases] the teach actuator 123 within a predetermined amount of time to implement the programming of the dip switches." Page 8, Application. Thus, the "switch settings" cannot be the teaching actuator as recited in the claims because the teach actuator is a separate component that is protected by the access door, where the teach actuator implements the programming of the switches.

Appellant further submits that the end cap of MiniSafe does not prevent physical access to the program button in MiniSafe. According to the Office Action, the "access door" is the end cap, and the program button must remove the security screw. However, the program button of MiniSafe is not within the end cap (see p. 39 MiniSafe), and therefore the end cap is not preventing access to the program button. According to Page 4 of MiniSafe, the Removable End Cap is listed in the Chart as #3, and states it provides “Access to configuration switches”. Furthermore, on Page 4 of MiniSafe, listed adjacent to chart # 10, states “Inside Receiver End Cap”. Listed under “Inside Receiver End Cap” is “Switch B”, “Switch A”, and “Connector”. Notably, the “Program button” of Minisafe, Chart #4 of Page 4 MiniSafe, is not listed as being

"Inside Receiver End Cap". Furthermore, the end cap of MiniSafe is not identical as being structured as slidable, rotatable or operably elevated.

With respect to claim 3, the Office Action states that MiniSafe teaches the access door is disposed on the transmitting side of the housing assembly. Appellant respectfully traverses. Page 4 of MiniSafe states "receiver" (RECEIVER = Chart #1) in the left column and lists "end cap" within the left column (Removable End Cap = Chart #3). In the right column of Page 4 of MiniSafe, "transmitter" (TRANSMITTER = Chart #11) is stated and does not include the end cap.

According to the Advisory Action,

> Applicant Argues: Applicant cannot find where an access door is disposed on a transmitting side of the housing assembly. Examiner Responds: Side disposition is a matter of design choice, since applicant has not disclosed that a particular side solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with either side. In other words, the design choice lacks any specific criticality by the applicant.
> Page 2, Advisory Action.

Applellant submits that the Applicant argument was pointing out that the cited reference, MiniSafe, fails to identically show the elements of the claims, as required by 35 U.S.C. 102 (b). The response in the Advisory Action appears to be applying a different legal standard, which does not apply to 35 U.S.C. 102 (b). That is, any "design choice" issues are not relevant to an analysis of whether a particular reference identically establishes each and every element of the claim, as required by 35 U.S.C. 102 (b).

With respect to claim 6, the Office Action states that MiniSafe teaches that a "teaching actuator is released in a predetermined amount of time after cessation of visual indication of the visual indicators (e.g., operator must press and release the START button)." Page 5, Office Action. Appellant respectfully traverses. For independent claim 1, from which claim 6 depends, the Office Action states that the teaching actuator are the switch settings. However, now the Office Action states the teaching actuator is the START button. Within a rejection of a single claim, claim 6, the Office Action relies upon two different elements of the reference (switch settings and START button of MiniSafe) to identically establish a single element of the claim, the teaching actuator. Appellant submits the cited reference cannot identically show the claimed elements since multiple different elements are being relied on to establish a single element of the rejection.

According to the Advisory Action, regarding this same rejection, "See prior art Page 13 for Ts = the stop time of the press or machine in seconds, measured from the de-energized control element." Page 2, Advisory Action. Appellant respectfully traverses.

The section of MiniSafe quoted by the Advisory Action on Page 13 is entitled "Safety Distance" and specifically Safety Distance Formulas. According to MiniSafe, the system "must be mounted far enough from the machine danger zone so the machine will stop before a hand . . reaches the hazardous area. This distance is called the safety distance. It is a calculated number based on a formula." Page 13, MiniSafe. The formula in MiniSafe for a minimum safety distance, D_s, is given as:

$D_s = K \times (T_s + T_c + T_r + T_{bm}) + D_{pf}$, where T_s is the stop time of the press or machine.

Appellant submits the Advisory Action fails to further point out a teaching actuator that is released in a predetermined amount of time after cessation of visual indication of the visual indicators, as stated in claim 6. The stop time of the press of MiniSafe instead relates to the amount of time it takes for the machine to stop, for example, when the control element of the machine is de-energized. It cannot be seen how it relates in the manner as stated in the Advisory Action. It cannot be seen how the stop time of MiniSafe identically establishes any other elements of claim 6.

With respect to claims 28 and 32, the Office Action states that MiniSafe teaches a sensor configured to sense whether the access door is in the closed position or in the open position, and further cites "see Page 4, Page 10, and Figure F-1 on Page 39." Page 7, Final Office Action. However, no such sensor can be found. Page 4, 10, Figure F-1 of MiniSafe fail to identically include a "sensor" as asserted by the Final Office Action. Furthermore, as discussed above, an access door for the teaching actuator is lacking in MiniSafe, and thus it follows a sensor for the access door is likewise not established by MiniSafe.

In response to Appellant's assertions of missing elements, the Advisory Action further directs Appellant to "see prior art Page 11 Section 6.3 for 'when the MiniSafe enables its OSSD outputs, it monitors the MPCE for a CLOSED-to-OPEN transition.'" Page 2, Advisory Action. MiniSafe at p. 11, 6.3 relates to Machine Primary Control Element Monitoring (MPCE). The OSSD refers to an "Output Signal Switch Device" and the CLOSED to OPEN transition relates to the MPCE, as opposed to an access door (as implied in the Advisory Action), which as stated above, MiniSafe fails to identically show.

Appellant submits the reference fails to identically show all elements of the claims. Reconsideration and removal of the rejection is respectfully requested.

Appellant respectfully submits that the claims are in condition for allowance, and notification to that effect is respectfully requested. If necessary, please charge any additional fees or credit overpayment to Deposit Account 50-3503.

Respectfully submitted,

Date: January 9, 2012

By: /Catherine I. Klima-Silberg/
Catherine I. Klima-Silberg (Reg. No. 40,052)

Viksnins Harris & Padys PLLP
Customer Number 14991
PO Box 111098
St. Paul, MN 55111-1098
(847) 910-1465

(8) Claims Appendix.

1. An apparatus comprising:

A light curtain assembly, the light curtain assembly including:

a housing assembly;

programmable controls coupled with the housing assembly;

a teaching actuator operatively coupled with the programmable controls; and

an access door coupled with a portion of the housing assembly, the access door having a closed position and an open position, the access door preventing access to the programmable controls and the teaching actuator through the access port when the access door is disposed in the closed position, the access door structured as slidable, as rotatable, as operably elevated, or combinations thereof to provide access to the programmable controls otherwise protected by the access door.

2. The apparatus as recited in claim 1, further comprising a fastener coupled with the access door, wherein the fastener prevents unauthorized access to the programmable controls.

3. The apparatus as recited in claim 1, wherein the access door is disposed on a transmitting side of the housing assembly.

4. The apparatus as recited in claim 1, wherein the programmable controls comprise dip switches.

5. The apparatus as recited in claim 1, further comprising one or more visual indicators.

6. The apparatus as recited in claim 5, wherein the teaching actuator is released in a predetermined amount of time after cessation of visual indication of the visual indicators, and programming of the programmable controls is implemented.

17. An apparatus comprising:

a light curtain assembly, the light curtain assembly including:

a housing assembly including an access port therein;
programmable controls coupled with the housing assembly;
a teaching actuator operatively coupled with the programmable controls;
an access member door coupled with a portion of the housing assembly, the access member door preventing physical access to the programmable controls through the access port and the teaching actuator when the access member door is disposed in a closed position, and the access member door structured to prevent prevents unauthorized physical access to the programmable controls, the access door operable in position or condition to provide access to the programmable controls otherwise protected by the access door.

18. The apparatus as recited in claim 17, further comprising a means for preventing unauthorized programming of the programmable controls.

19. The apparatus as recited in claim 17, further comprising one or more visual indicators.

20. The apparatus as recited in claim 19, wherein the teaching actuator is released in a predetermined amount of time after cessation of visual indication of the visual indicators, and programming of the programmable controls is implemented.

26. The apparatus as recited in claim 17, further comprising dip switches.

27. The apparatus as recited in claim 17, further comprising one or more sealing features between the access member door and the housing assembly.

28. The apparatus as recited in claim 17, further comprising a sensor configured to sense whether the access member door is in the closed position or in the open an access position, the open position being a position to physically access the programmable controls.

29. The apparatus as recited in claim 17, further comprising a fastener that prevents the access member door from being opened.

30. The apparatus as recited in claim 19, wherein the one or more visual indicators indicate when the teaching actuator is actuated.

31. The apparatus as recited in claim 1, further comprising one or more sealing features between the access member door and the housing assembly.

32. The apparatus as recited in claim 1, further comprising a sensor configured to sense whether the access member door is in the closed position or in the open an access position, the open position being a position to physically access the programmable controls.

33. The apparatus as recited in claim 5, wherein the one or more visual indicators indicate when the teaching actuator is actuated.

(9) Evidence Appendix.

None.

(10) Related Proceedings Appendix.

None